

<110> Daiichi Suntory Pharma Co., LTD.
 <120> Method for cleavage of polypeptide using OmpT protease variant
 <130> P860
 <160> 8
 <210> 1
 <211> 184
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221>
 <222>
 <223> Basic amino acid sequence of PRR fusion protein

<400> 1
 Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
 1 5 10 15
 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
 20 25 30
 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
 35 40 45
 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
 50 55 60
 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala
 65 70 75 80
 Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr
 85 90 95
 Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
 100 105 110
 Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln
 115 120 125
 Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His Gly
 130 135 140
 Ser Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr
 145 150 155 160
 Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile
 165 170 175

Ala Trp Leu Val Lys Gly Arg Gly

180

<210> 2

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PA fusion protein

<400> 2

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15
Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30
Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
35 40 45
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60
Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala
65 70 75 80
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr
85 90 95
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
100 105 110
Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln
115 120 125
Met His Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala
130 135 140
Ala Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr
145 150 155 160
Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile
165 170 175
Ala Trp Leu Val Lys Gly Arg Gly
180

<210> 3

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PA3' type fusion protein

<400> 3

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15
Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30
Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
35 40 45
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60
Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala
65 70 75 80
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr
85 90 95
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
100 105 110
Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln
115 120 125
Met His Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Arg Ala
130 135 140
Ala Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr
145 150 155 160
Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile
165 170 175
Ala Trp Leu Val Lys Gly Arg Gly
180

<210> 4

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PA23' type fusion protein

<400> 4

Met	Thr	Met	Ile	Thr	Asp	Ser	Leu	Ala	Val	Val	Leu	Gln	Arg	Lys	Asp
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Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu	Asn	Arg	Leu	Ala	Ala	His	Pro
			20					25					30		
Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Asp	Asp	Ala	Arg	Thr	Asp	Arg	Pro
		35					40					45			
Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly	Glu	Trp	Arg	Phe	Ala	Trp	Phe
	50					55					60				
Pro	Ala	Pro	Glu	Ala	Val	Pro	Glu	Ser	Leu	Leu	Asp	Leu	Pro	Glu	Ala
	65				70					75				80	
Asp	Thr	Val	Val	Val	Pro	Asp	Ser	Ser	Asn	Trp	Gln	Met	His	Gly	Tyr
			85						90					95	
Asp	Ala	Pro	Ile	Tyr	Thr	Asn	Val	Thr	Tyr	Pro	Ile	Thr	Val	Asn	Pro
		100						105					110		
Pro	Phe	Val	Pro	Thr	Glu	Pro	His	His	His	His	Pro	Gly	Gly	Arg	Gln
	115						120					125			
Met	His	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Arg	Arg	Arg	Ala	Arg	Ala
	130					135					140				
Ala	Gly	Ser	Pro	Tyr	Arg	His	Pro	Arg	His	Ala	Glu	Gly	Thr	Phe	Thr
	145				150					155				160	
Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly	Gln	Ala	Ala	Lys	Glu	Phe	Ile
			165						170					175	
Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly								
			180												

<210> 5

<211> 162

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PRMT type fusion protein

<400> 5

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15
Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30
Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
35 40 45
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60
Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala
65 70 75 80
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr
85 90 95
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
100 105 110
Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln
115 120 125
Met His Gly Tyr Asp Ala Glu Lue Arg Leu Tyr Arg Phe Val Pro Ile
130 135 140
Phe Thr Tyr Gly Glu Leu Gln Arg Met Gln Glu Lys Glu Arg Asn Lys
145 150 155 160
Gly Gln

<210> 6

<211> 165

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PMT type fusion protein

<400> 6

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15
Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
 35 40 45
 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
 50 55 60
 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala
 65 70 75 80
 Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr
 85 90 95
 Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
 100 105 110
 Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln
 115 120 125
 Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Phe
 130 135 140
 Val Pro Ile Phe Thr Tyr Gly Glu Leu Gln Arg Met Gln Glu Lys Glu
 145 150 155 160
 Arg Asn Lys Gly Gln
 165

<210> 7

<211> 167

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PAC type fusion protein

<400> 7

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
 1 5 10 15
 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
 20 25 30
 Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
 35 40 45
 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
 50 55 60
 Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala

65		70		75		80
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr						
	85		90		95	
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro						
	100		105		110	
Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln						
	115		120		125	
Met His Ala Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Ser						
	130		135		140	
Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys Arg						
145		150		155		160
Arg Pro Val Lys Val Tyr Pro						
	165					

<210> 8

<211> 176

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PCT type fusion protein

<400> 8

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp							
1		5		10		15	
Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro							
	20		25		30		
Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro							
	35		40		45		
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe							
	50		55		60		
Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala							
65		70		75		80	
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr							
	85		90		95		
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro							
	100		105		110		

Pro	Phe	Val	Pro	Thr	Glu	Pro	His	His	His	His	Pro	Gly	Gly	Arg	Gln
		115					120					125			
Met	His	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Arg	Arg	Arg	Ala	Arg	Cys
	130					135					140				
Gly	Asn	Leu	Ser	Thr	Cys	Met	Leu	Gly	Thr	Tyr	Thr	Gln	Asp	Phe	Asn
145					150					155					160
Lys	Phe	His	Thr	Phe	Pro	Gln	Thr	Ala	Ile	Gly	Val	Gly	Ala	Pro	Gly
				165					170						